

5

OBSERVATIONS
ON
PUERPERAL FEVER.

OBSERVATIONS
ON THE DISEASE, USUALLY TERMED
PUERPERAL FEVER,
WITH CASES.

BY WILLIAM CAMPBELL, M. D.

SURGEON, ROYAL NAVY ;

Fellow of the Royal College of Surgeons, Edinburgh ; one of the Medical Officers of the Royal Public Dispensary for the City and County of Edinburgh ; Member of the Medico-Chirurgical Society of Edinburgh ; and Lecturer on Midwifery.

*Extracted from the Medical and Surgical Journal for
April 1822.*

THE disease to which professional men have been pleased to apply the term Puerperal Fever, has, in all ages, proved so great a scourge to women in child-bed, *that it becomes the duty of every practitioner, who may have been at all successful in treating it, to communicate the result of his practice to the profession.* The fatality of this disease has been marked, in the strongest language, by some of the most distinguished professional men of the last and present centuries. Dr William Hunter, whose unwearied zeal for the improvement of medical science was no less to be admired than his extraordinary talents, and whose memory

must be for ever revered by the profession, asserted, that “ puerperal fever caused the death of two-thirds of those women who died in child-bed.” Dr Hulme, who wrote an admirable treatise on this subject, declared, “ That the fatality of the puerperal fever was such, that it should be equally dreaded with the plague itself.” That judicious practitioner, Dr Denman, was of opinion, that “ puerperal fever occasioned the death of much the greater part of those women who died in child-bed.” Another eminent teacher of midwifery in London, who wrote on this subject, observed, that “ those medical men, whose age and experience were great in the diseases of puerperal women, were staggered at the fatality, and perplexed and embarrassed in the treatment of the disease.”

Unfortunately for suffering humanity, the records of medicine, in this as well as in other countries, show but too clearly the justness of the above assertions ; for, in some instances, all who were attacked fell victims to it ; while, in others, not above one or two out of a great number recovered. When it manifested itself at the Hôtel Dieu of Paris, in 1746, Monsieur Malouvin expresses himself in the following words : “ Dans le mois de Fevrier, de vingt des ces femmes malades en couchées en peine en eehapoit-il-un.” Dr William Hunter was in the habit of informing his pupils, that, “ in the space of two months, out of thirty-two patients who were seized with this disease, only one recovered.” In the Lying-in Ward of the Royal Infirmary of this City, while under the directions of Professor Young, all who were attacked with it in the epidemic season died. And when it appeared in the Lying-in Hospital in 1814–15, only one out of nine escaped. In a word, the mortality of the disease has been generally so great as to induce some high authorities to declare, that two or three members of the profession, who had been more fortunate in

their treatment than others, must have deceived themselves, and that the disease described, and so successfully treated by them, was quite of a different nature to puerperal fever. In this light we are taught to view the productions of Drs Leake, Denman, Gordon, Armstrong, and Mr Hey.

I shall not pretend to say any thing in support of the accuracy of the above gentlemen's cases, for they will speak for themselves; and if any person, who is determined to decide with impartiality, will merely compare them with those of Dr Hulme, who is allowed to have really met with the disease, and to have described it most accurately, I think he would find it difficult to point out wherein the difference exists. In a profession like ours, where we are all supposed to be toiling for the general good, prejudices or opinions long cherished should never deter us from paying due attention to the discoveries or improvements of the junior members of the profession. In medicine, however, as in other sciences, it is to be regretted, that the prejudices of its members have not unfrequently impeded its advancement; and on no occasion has this been more conspicuous than the present, as may be seen by comparing the results of different practitioners' practice.

I should conceive, and I suppose there are few of the profession who will not agree with me in saying, that when we have a rational theory for any disease, deduced from the actual examination of the bodies of many who have fallen victims to it, and this theory afterwards more fully confirmed by practice, as has been most satisfactorily done by several, but more particularly by Dr Gordon and Dr Armstrong, it is certainly our duty to put this theory still further to the test of experiment, in defiance of our own opinions. In opposition to this, it may be urged by some, that the practice recommended by the above gentlemen

has been tried and found unsuccessful. No doubt it has been tried and proved unsuccessful; but for what reason? Because 12 or 16 oz. of blood have been detracted in the advanced stage of the disease, when, in fact, 60 or 80 oz. should have been taken away at the commencement. That this has been actually the case, people of moderate research are well aware of; for Hippocrates himself recommends bleeding; and it has been hinted at or spoken of by every physician of any character since his time, but practised so sparingly by some, or directed under such strong cautions by others, as to have rendered it useless when had recourse to, or to have paralysed some of the profession to such a degree as to relinquish it altogether. Some have ordered the veins of the ham, ankles or feet to be opened; and others have said that we should not bleed at all, without the most urgent necessity, or without great deliberation. It is true, however, that others have had the boldness to assert, that a vein should be opened in the arm; and they have even gone so far as to recommend the operation to be repeated; but their language is still so guarded and obscure, as to render it extremely doubtful whether some of them have ever followed the dictates of their own inclinations. To this last point, however, I shall attend more particularly hereafter.

Although it cannot be doubted that partiality for opinions long cherished has contributed to multiply the victims of puerperal fever, our want of success in the treatment of this formidable disorder is perhaps to be somewhat ascribed to the discrepancy of authors on this subject; for of all the diseases which have engaged the attention of the profession, from the time of Hippocrates to the present day, there is none which has given rise to more speculation and contrariety of opinion. Hippocrates gives a very accurate description of this disease, although not under any

particular appellation ; he considers it to be an inflammation of the uterus, and to be caused by obstruction of the lochia, as may be understood from the following passage. “ Si vero non processerit purgatio, contingit ipsam febrire, et horrorem habere, et ventrem magnum esse ; et si ipsam attigeris, totum corpus dolere, maxime si quis ventrem attingat : et alias atque alias stomachi dolore vexatur, et lumbos dolet, et cibi fastidium, et vigiliæ, et punctura adest. Postea quinto aut septimo die quandoque venter turbatur et secedunt nigra, et valde graveolentia alias atque alias, et urina velut asinina. Et secesserint, videtur sibi melius habere, et curata brevi sana sit : sin minus, periclitabitur profluvio ventris forti ipsi illapso. Et puerperii purgamenta ipsi occultabuntur.”

The above quotation, while it convinces us that Hippocrates was well acquainted with the disease under consideration, at the same time furnishes us with a striking instance of the superior penetration and judgment of that great physician. The condition of the pulse, and the appearance of the countenance, seem to have been attended to with equal care ; for he observes in another place,— “ Pulsus debiles sunt, et aliquando acuti, et alias attolluntur, alias deficient. Hæc patitur incipiente morbo et sic habet. Temporis autem progressu, cavæ faciei rubescunt.” Of the same opinion with Hippocrates, respecting the nature of this disease, were Galen, Celsus, Ætius, Paulus Egineta, Avicenna, Raynalde, Felix Platerus, Senner-tus, Riverius, Sylvius, Mauriceau, Sydenham, Boerhaave, Van Swieten, La Motte, and Hoffman ; together with Jussieu, Villars, Fontaine, Pouteau, and Denman ; as well as many others, both on the Continent and in Great Britain. Others supposed the disease to be an inflammation of the intestines, omentum and mesentery ; and Hulme, who was of this opinion, expresses himself in the following language.

“ The immediate cause of the puerperal fever, is an inflammation of the intestines and omentum. For the truth of this assertion, I appeal to dissections.” La Roche and Leake entertained similar sentiments. Willis, Levrèt, Puzos and Doublet, considered this fever as one of a peculiar nature, and proper only to the state of child-bed. Willis expresses himself nearly as follows: “ The fevers of women in child-bed are attended with much more danger than those which happen in common, and differ very materially from a simple and putrid synochus. According to these authors, this disease is caused by metastasis of the milk. White imagined puerperal fever to be of a putrid nature; in which opinion Peu, Tissot, Le Roi and others, have concurred. White has the following passage: “ When a woman is in labour, she is often attended by a number of her friends, in a small room with a large fire, which, together with her own pains, throw her into profuse sweats; by the heat of the chamber, and the breath of so many people, the whole air is rendered foul, and unfit for respiration. This is the case in all confined places, hospitals, jails, and small houses inhabited by families, where putrid fevers are apt to be generated, and proportionally the most so where there is the greatest want of free air,” &c. Kirkland considers this disease sometimes a putrid, and sometimes an inflammatory affection. Petit and Selle considered the puerperal fever to be of a complicated nature; and Walsh, who is of the same opinion, expresses himself in the following terms: “ In reality, it is no other than the common infectious fever, complicated with a more or less extensive inflammation of the peritoneum;” and in another place he says, “ We look upon the puerperal fever as a form of the common synochus or typhus.” Others again suppose, that puerperal fever is owing to some derangement of the biliary organs, and therefore consider it to be

of a bilious nature. Among this number are two or three of the Continental practitioners, such as Finek, Stoll, and Doulcet. The most generally received opinion now is, that the disease under consideration is only peritonitis in the puerperal state, modified by various causes and circumstances, and produced by infection or casual occurrences. Many authors on the Continent, as well as in our own country, are converts to this last opinion; such as Walter, Johnston, Forster, Cruickshanks, Bichat, Pinel, Gardien, Capuron, Gordon, Armstrong, and Hey.

From a review of the sentiments of the different authors whom I have quoted, it will be seen that no less than seven different opinions have been entertained respecting the nature of puerperal fever; *first*, that it is inflammation of the uterus; *secondly*, that it is inflammation of the abdominal linings and intestines; *thirdly*, that it is simply peritoneal inflammation in the puerperal state; *fourthly*, that it is an affection *sui generis*, and peculiar only to lying-in women; *fifthly*, that it is a putrid fever; *sixthly*, that it is a bilious fever; and, *lastly*, that it is peritoneal inflammation with typhus.

I shall now make a few observations upon the first, second and third of these opinions, as they all relate, more or less, to inflammation of the abdominal viscera. With respect to the first of these, I have had indubitable proofs, both during life and after death, that the uterus may be implicated in the disease, and that to a very considerable extent. In the commencement of the disease, in many of the cases which I shall detail, the patients complained of pain sometimes acute, sometimes obtuse, in the lower part of the abdomen; and the uterus, much enlarged, could be distinctly felt through the abdominal parietes. Along with this, there was severe pain complained of in the region of the ovaries—sometimes in one iliac region only, at

other times in both ; and it was not until the disease had existed for some time, that the pain advanced towards the umbilicus, and became general all over the abdomen. After death, this opinion was still further confirmed ; for, in several of the cases, the uterus was interspersed with bright red patches, as if injected with fine red wax, while its appendages, particularly the ovaries, appeared to have escaped the disease entirely ; but, in two of the cases, the ovaries had been almost destroyed by suppuration, while the uterus suffered comparatively little.

In answer to the second and third opinions, I may observe, that when the uterus, or its coverings and appendages, are affected with inflammation, it will require very little stretch of imagination to suppose, that the excitement will pass very soon from the uterus to the peritoneum and intestines ; or again, when the peritoneum is first affected, that the inflammation will spread from this last to the uterus ; so that the advocates for the first, second, and third opinions, may be right at one stage of the disease, but wrong at another. There is not the least doubt, if the disease gains ground in defiance of our remedies, that the omentum, mesentery and intestines, will become affected as the disease advances ; but they only become so progressively, by the inflammation spreading from one point to another,—from the uterus to the peritoneum, and from this last to the intestines, and other parts said to have exhibited signs of disease, or *vice versa*. If we deny that inflammation can spread from the peritoneum to the uterus, or from the latter to the former, we may equally deny that the brain can become affected when its membranes are inflamed ; for the case is nearly parallel. Whether it be the uterus itself, or its peritoneal coat only, that is the primary seat of the disease, it will, in my opinion, be difficult to determine ; for it may sometimes be the one, and some-

times the other ; but a knowledge of this fact can be of little moment in a practical point of view ; for whichever be the first affected, the treatment must be the same. In April 1819, I attended a young married lady in her first pregnancy, in whose case the lochia began to diminish on the seventh day after parturition, and were totally suppressed on the tenth ; and it was only after the discharge had disappeared entirely, that she complained of acute pain, and the other concomitant symptoms of inflammation. In May 1820, I attended a stout healthy young married female in the middle ranks, in whom the lochia became obstructed on the fourth day after delivery, when she was seized with severe abdominal pains, succeeded by tumefaction of the abdomen. In both cases, the patients were unable to nurse. The milk disappeared entirely, although in each the secretion had at first been abundant. From these, and many other cases of a similar nature, I may probably be excused for drawing the following conclusions, viz. That where pain succeeds suppression of the lochia, the primary seat of the disease will be the uterus ; but where the pain is the primary symptom, that the primary seat of the disease will be the peritoneal covering of the uterus, the peritoneum generally, or the intestines.

As to the puerperal fever being an affection peculiar to child-bed, this is an idea which appears to me so inconsistent, that I shall simply pass it over with the following quotation from the work of a very able teacher of midwifery in Paris, which will sufficiently show the absurdity of the notion, and save me the trouble of making comments which might be thought illiberal : “ Rien de plus absurde, de plus chimerique, ou de plus contraire à l'esprit d'analyse et d'observation, que l'idée d'une fièvre puerperale, c'est-à-dire, d'une fièvre essentielle ou propre à la femme nouvellement accouchée. Pour qu'une pareille

maladie méritât le titre qu'on lui donne, et la place que certains auteurs voudroient lui assigner dans les cadres nosologiques, ne seroit-il pas nécessaire qu'elle fût toujours, dans tous les tems, dans tous les lieux, et chez toutes les femmes, produite par les mêmes causes, accompagnés des mêmes symptômes, et avantageusement combattue par les mêmes remèdes. Or il s'en faut bien que la fièvre qui suit les couches réunisse cette triple identité; il semble au contraire, que les écrits ne se soient multipliés sur cette prétendue maladie, que pour en laisser entrevoir le vague, l'incertitude, et le peu de réalité; tant on y trouve d'idées disparates, et pour ainsi dire, contradictoires !”

From these remarks I may now pass on, before taking notice of the other opinions respecting the nature of this disease, to consider the propriety of calling it Puerperal Fever, the first invention of which has been ascribed to Strother, who wrote in 1718, and who entertained the same opinion respecting its causes and nature as the ancients. A moment's consideration will show how inapplicable this term is, particularly to a disease which has been thought to be peculiar to child-bed; because it simply implies a fever in the puerperal state, and is therefore as applicable to Ephemera, Milk Fever and Typhus, as it is to the disease at present under consideration. Others again think, that it should be called Peritonitis; and Gardien observes, “ La denomination de Peritonite que l'on a commencé à appliquer en France à la maladie des nouvelles accouchées connue sous le nom de fièvre puerperale, depuis que l'on a commencé à étudier d'une manière isolée les lésions des divers systèmes d'organes est bien plus précise: cette manière de considérer la fièvre puerperale est parfaitement d'accord avec l'expérience, et les phénomènes pathologiques; on pourroit à juste titre réclamer la priorité de cette réforme en France pour le Professeur Pinel, qui, le premier,

a dit expressément que la fièvre puerperale étoit une phlegmasie de la membrane sereuse de l'abdomen, quoique on en ait fait hommage à Bichat dans plusieurs Dissertations."

I most cordially coincide with Pinel in thinking, that Peritoneal Inflammation is a proper term to be applied to many cases of the disease, although, at the same time, it cannot be denied that the uterine system is as often the primary and chief seat of the disease. We may, therefore, in my opinion, with more propriety, call it Abdominal Inflammation occurring in the puerperal state. If people will lay aside theory, and trust to the evidence of their senses, they will find this verified by examining the bodies of those who may fall victims to the disease. And what corroborates this opinion still further, is, that the practitioners who were at all successful in their treatment, were those who treated it fearlessly as inflammation. But if practitioners will only look upon it as an inflammatory affection, and treat it fearlessly as such, I care not what name they may apply to it ; for this alone will soon bring every one to a just sense of his duty, and save many valuable lives to society. I am aware that this opinion is denied by some of the most eminent teachers and practitioners of the obstetric art ; but certainly not upon any just grounds. One person says, that in the true puerperal fever, the lochia are never suppressed, while in peritonitis they are always so. Another, of no less celebrity, observes, " It is important to distinguish puerperal fever from simple peritonitis, which may generally be done by attention," &c. With regard to these opinions, I have to observe, in the first place, that the condition of the lochia in puerperal fever has been variously described by every member of the healing art, from the time of Hippocrates to the present day,—some saying that they are diminished in quantity ; others, that they are quite suppress-

ed ; while a third individual declares positively, that they invariably remain unaltered in the genuine puerperal fever. In some of the cases which I have had under my care, the uterine discharge was diminished ; but in one case only was it entirely suppressed. Even Dr Hulme, who is allowed to have met with the disease, says, that “ the lochia, or usual discharges, are diminished in quantity ;” and in another place he observes, “ that at the beginning of the distemper, there is generally more or less of a suppression of the lochia.” I should therefore suppose, that the great variety observed by different authors in the appearance of the lochia, should be enough to show how little we ought to rely on this point as a diagnostic. No doubt, one person is more accurate in his observations than another ; but when he exceeds all others in accuracy—some of superior, and some of equal talents with himself—I am not certain how far we are justified to rely upon his statements. There is no occasion on which it is of greater importance for a physician to be able to distinguish properly the diseases under which his patients are labouring, than in the puerperal state ; because many of the puerperal diseases are of a most formidable nature, require prompt decision and vigorous treatment. But so far from any bad results having ensued by confounding puerperal fever with peritonitis, this pretended mistake has, on the contrary, been attended with incalculable advantages, for many lives have been saved to society in consequence ; so that in this case it is a deviation from the general rule. As to the facility with which a line of demarcation can be drawn between the two diseases, I have merely to remark, that the late ingenious Dr John Clarke, anxious as he was to accomplish this object, completely failed in the attempt ; and that the French practitioners of the present day, with all their ingenuity and

acuteness of observation, have been satisfied that this distinction is impracticable, useless, or hurtful.

The opinion of this disease being a putrid fever, has been so completely disproved by the result of those gentlemen's practice who treated it upon this principle, that such sentiments are now very justly ridiculed by most practitioners; and I have no hesitation in saying, that it was to this opinion our former unsuccessful results in the practice of this disease should be in a great measure attributed; for until Dr Gordon of Aberdeen's admirable treatise on this subject appeared, "the pen of writers did little more than record the times and places when and where it proved most fatal, the appearance it put on, its symptoms, its devastations, and a variety of modes of treatment that had no certain success."

As to this affection being a bilious fever, I suppose the coffee-coloured vomiting, together with the diarrhœa sometimes observed in the disease, were the appearances which gave rise to this notion, the same as was formerly the case in yellow fever; but, with the exception of the diarrhœa, and what is rejected by vomiting, neither the other symptoms during life, nor the appearances on dissection, demonstrate any thing to prove this opinion; on which account, it should be rejected as purely speculative. It is true that, in some cases, the peritoneal covering of the liver has been found in a state of inflammation; but the organ itself was unaffected. Monsieur Douleat on the Continent, and Walsh in this country, treated the disease upon this principle, and were astonishingly successful in their treatment. The former says, that "all his patients, to the number of 200, recovered by the practice employed, except six, who could not be prevailed upon to follow it;" and the latter, that his "practice was followed by an uninterrupted success." Notwithstanding these successful results, it is remarkable, how-

ever, that almost every one who has written upon this subject since the time of M. Douleat, condemned the practice; which further shows, that there is but little foundation for this theory.

The last theory I am to notice, is that of puerperal fever being “merely typhus, complicated with a more or less extensive inflammation of the peritoneum.” It has been observed by the best authors on this subject, that the disease is very insidious in its attacks; which observation I have had an opportunity of corroborating in many of the cases I have met with. In some of them, the abdominal pain was so inconsiderable, that the patients would not have complained of it, had they not been questioned particularly on this point; and then it was only described as a general soreness of the abdomen, and not as an acute pain. In most cases, however, these feelings were rendered sufficiently acute when pressure was made on the abdomen. All of them, except one or two, were preceded by so distinct a rigor that patients never failed to mention it. It was this circumstance, with the state of the pulse and appearance of the countenance, that excited my alarm in the generality of the cases; and my suspicions were further confirmed, by inquiring about the state of the abdomen. So insidious, indeed, is the primary attack of the disease in some cases, that there are not wanting instances of its having been suffered to proceed to an alarming height, before the attendants were even aware of the existence of indisposition, and before it was thought necessary to call in medical aid,—the patient’s complaints being confounded with ephemera, or after-pains *. The practitioner then called in might, with-

* One of the cases which I witnessed proved fatal from this very circumstance. The patient alluded to aborted between the second and third month; being then pregnant for the seventh time. She felt herself so well

out fear of contradiction, say that such patients laboured under typhoid symptoms ; but these symptoms are the consequences of neglected inflammation, or, in plainer language, the effects of mortification supervening on inflammation ; and precisely the same thing will be observed in every case where inflammation terminates by the destruction of the part affected. Accordingly, Dr Gordon of Aberdeen very properly observes, that “ the puerperal fever is always inflammatory at the beginning, and becomes putrid only in its progress ;” and, “ that this putrescency is only the effect of inflammation neglected or improperly treated.” I am perfectly satisfied that this excellent practitioner has, by this last opinion, furnished us with the real nature of puerperal fever ; and that it is only by being called when the disease is far advanced, and its stages confounded, that we can explain how any person in his sound senses could assert that there was any thing typhoid in this affection, more particularly at its onset, when every symptom on the contrary indicates, in the most decisive manner,

on the second day after, that she went to the washing-green ; and, on her return home in the evening, was seized with a violent rigor, which, by herself and those around her, was considered as the forerunner of a weed. On this account, it was not deemed necessary to call any medical aid, particularly as there was no one in attendance when she aborted. The rigors were followed by abdominal pain, which gradually increased in severity ; and two days afterwards, my friend Mr Kennedy, surgeon, was sent for, who, from a sense of the alarming situation in which he found the patient, requested me to see her along with him. I accordingly visited her on the 14th of October, the afternoon of the day on which Mr K. had been called ; but she was then too far gone to support bleeding in any form, and sunk the following evening. We obtained leave to examine the body in this case ; and the only point in which it differed from the others, was, that the evidences of inflammation throughout the whole abdominal cavity were far greater, and that the intestines were particularly affected, more so indeed than in any of the other cases.

that it is a disease of high vascular excitement. Besides, as already observed, the mortality of the disease, when treated from the commencement as a fever complicated with typhus, and its success, when treated as an inflammatory affection, should have been sufficient to eradicate deep-rooted prejudices, and convince those who are still undetermined.

With respect to the causes of this affection, the sentiments of practitioners have been no less at variance. The susceptibility of the system to disease in the puerperal state, as well as the changes consequent upon parturition, must be considered as giving a predisposition to inflammation. From the moment gestation has taken place, the sensibility of the whole system is progressively excited, as may be remarked from the facility with which females in a state of gravidity are affected by the most trivial impressions, but more particularly when taken by surprise. The ease with which abortion is produced in some cases, is a strong proof of this; and the facility with which ephemera and some other affections are produced in the puerperal state, is a proof equally striking of the extreme sensibility of the system after parturition. Another cause which must powerfully predispose to inflammatory affections is, the plethoric condition of the system after parturition. When the contents of the uterus have been evacuated, this viscus contracts itself immediately after, to such an extent, as to diminish very much the diameter of the uterine vessels, by which they are prevented admitting the same proportion of blood which they received and circulated before delivery. In consequence of this change, therefore, it is not only the parts in the immediate vicinity of the uterus which are in a state of congestion, but the whole system must partake, more or less, of the same condition. The bad effects which might arise from this superabundance of blood cir-

culating in the system, are wisely counteracted by the continuation of the uterine discharge, as well as by the determination of blood which takes place towards the mammæ, to perform the secretion of milk. But when any of the exciting causes are applied, before the determination of blood from the uterus to the mammæ takes place, it is obvious that inflammation will be easily excited, the uterus and parts connected with it being still in a state of congestion with an increased distribution of the nerves, and therefore very prone to inflammation.

I may here state, that all those patients, to the number of five, who were seized with this affection after abortion, recovered, except the one to whom I was called by Mr Kennedy; and that four also recovered, in whom it had been late of appearing after parturition. The former, as well as some of the latter, did not require such active practice as those patients who were attacked very soon after delivery at the full time. These facts must be allowed to give great weight to the foregoing theory; for, in the first set of patients, the volume of blood circulating in the uterus, and parts connected with it, could bear no proportion to that at the full period of gestation; and in the cases where the disease appeared so late as the fourth, or from that to the sixth day after parturition, the quantity of blood in these parts must have been considerably diminished previous to the attack. The patients in whom the disease manifested itself so early as ^{just to the} from the third day after delivery, suffered most; for we lost but one patient where the disease was longer than this of shewing itself. The disease was also milder when it supervened on abortion, for Mr Kennedy's patient was the only one who died. During the time this epidemic prevailed, I had eight patients who had uterine hæmorrhage to some extent after parturition, but none of them had even a threatening of the dis-

ease,—a circumstance remarked by other practitioners, and another strong fact in favour of the theory advanced.

Dr Hulme, who was of opinion that the real nature of puerperal fever consisted chiefly in inflammation of the omentum, considered the pressure exerted by the enlarged uterus upon the intestines and other circumambient parts, as the principal predisposing cause, by impeding the circulation. If this could have any influence, puerperal fever should be of much more frequent occurrence than it is, and women bearing very large children, twins or triplets, should scarcely ever escape being seized with it; while, on the other hand, as Dr Leake very justly remarked, women during pregnancy would be as subject to it as those lately delivered; which is contrary to experience.

The exciting causes were thought to be still more numerous, such as suppression of the lochia, translation of the milk from the mammæ to the abdomen, and infection, together with a number of other causes which are known to excite inflammation in ordinary cases. Obstruction or suppression of the lochia was the cause assigned by the ancients for puerperal fever, in which opinion I have no doubt they were sometimes correct; while, in other cases, it is not less certain, that what they looked upon as the cause, was merely the effect. But the principle upon which they supposed inflammation to be caused by suppression of the lochia, is quite inconsistent with our present physiological knowledge. Lusitanus expresses himself in the following words on this subject. “Suboritur autem febris hæc, aut ex suppressis lochiis, aut ex eisdem non suppressis solum, verum etiam suppuratis; quippe dum supprimuntur aut diminute fluunt, quia os uteri occluditur a partu, vel contorquetur ob sanguinis copiam ibi conclusam, grumescere necesse est, aut putrescere; dum autem putrescunt, febres ac rigores magis fieri, quia ex putrescentibus in utero humori-

bus cor incalescit. Aut etiam febres ex morboſo apparatu preexiſtenti, difficilive partua ut ex lactis abundantia," &c. Sennertus and Riverius imagined, that there are certain impurities collected in the veins of the uterus, and other parts of the body, during geſtation, which are purged off by the lochia, and that, in the event of this diſcharge being ſuppreſſed or diminished in quantity, the conſequences might be very ſerious, from theſe impurities being retained in the ſystem. I have already obſerved, that the plethora reſulting from the ſuperabundance of blood circulating in the ſystem, after parturition, is in ſome meaſure removed by the uterine diſcharge, as well as by the determination which takes place towards the mammæ; ſo that when this diſcharge is prematurely ſuppreſſed, the uterus, and parts connected with it, muſt remain in a ſtate of congeſtion; and, upon the application of ſome of the exciting cauſes, as, for inſtance, paſſions of the mind and the exhibition of ſtimuli, inflammation will be eaſily produced. Premature ſuppreſſion of the lochia, therefore, ſhould rather be conſidered as a powerful predispoſing cauſe; and if it ever produces inflammation, as I have no doubt it occaſionally does, it muſt be in the manner above explained, and not as advanced by the ancients. At the ſame time, I muſt not forget to mention, that I have often met with caſes among the lower orders of ſociety, where the ſystem is by no means ſo ſuſceptible as among the better ranks, and where the lochia diſappeared very ſuddenly, upon the third or fourth day, without being followed even by any unpleasant ſymptom.

The idea of puerperal fever being occaſioned by metaſtaſis, or tranſlation of the milk from the mammæ to the abdominal cavity, originated with Continental practitioners; and, accordingly, Monsieur Levret obſerves, that, for the moſt part, this tranſlation of milky matter happens about a fortnight after the diſappearance of the milk. Van Swieten,

who was of the same opinion, expresses himself as follows. “An non ex haetenus dictis coneludi potest, metastasin lacteam producere posse omnia illa mala, quæ in textu enumerantur, et quæ lochiis suppressis tribui solent: prout, nempe, in has illasve partes deponitur materia lactea, et quidem tanto majori cum periculo, quanto partes, in quas deponitur, ad vitam magis necessariæ fuerint, uti etiam, si materia hæc deponatur in loco ex quibus difficulter eliminari potest,” &c. Doublet entertained similar sentiments to Levret and Van Swieten; and, according to Capuron, he carried his ideas on this point so far as to assert, that the milk ready formed existed in the blood previous to delivery. The effusions found in the abdominal cavity, after death, and our limited knowledge at that time, of the various terminations of inflammation, contributed to give origin to these absurd theories. Nothing, however, can be more at variance with experience, than the idea of the absorption of the milk being capable of producing puerperal fever. This disease has appeared, in by far the majority of cases, before there was any evidence of milk in the mammæ; and every day we meet with cases, where females are obliged, in consequence of the death of their infant, and various other causes, to relinquish nursing suddenly; but no bad effects follow, except now and then a mammary abscess from inattention. Were it necessary, many other arguments might be brought forward to confute the above theory.

The next cause I am to attend to is infection, which is a point of vital importance to be accurately ascertained, and one upon which I feel very reluctant to declare my sentiments. I am the more reluctant, because this opinion is still supported by men of exalted stations in their profession, as well as by others, who, by their labours, have contributed, in a most conspicuous manner, to furnish us with

correct ideas of this disease. On this last account, I regret much to be obliged to differ in opinion with Dr Gordon of Aberdeen, who thinks, that the infection by which puerperal fever is produced, is of a most concentrated nature; for that he himself had been the means of conveying the infection from those affected to patients recently delivered, and that midwives and other persons had done the same. Similar doctrines are daily taught by others. With regard to this question, I cordially agree with Mr Hey in thinking, that if the disease, as met with by me, was at all infectious, it must have been so in a very inferior degree to that encountered by Dr Gordon and others. I think I may be allowed to speak upon this point with greater confidence even than Mr Hey; for the number of patients delivered by my pupils and myself was far greater, and the situations in which they were placed, much more favourable to the dissemination of infection. All the patients who were attacked, but three, were residing in filthy, ill-ventilated houses; and during the whole time the disease continued, we seldom had less than two cases daily, and at times the number of four or five, some of which were people living in the most confined filthy situations, in houses such as the West Port, Cowgate and Canongate, places which must be looked upon as favourable to the presence of infection. But as this infection has been said to be capable of affecting no other but women in child-bed, and therefore to be of a truly *feminine nature*, people may also be inclined to assert, that it is not influenced by such causes as are known to support other infections. In some of the cases I met with, the disease might be attributed to the sufferings of the patient during parturition, the labour being severe and protracted, and to the premature and immoderate use of stimuli, as well as to premature exposure to cold; but, in three or four of them, I was unable to account for it. There did not, however, appear the least grounds for its originating in in-

fection ; for if there had, the cases would have been far more numerous, in consequence of the great number of women delivered at the time, the *situations* in which the generality of them were placed, and our having used no precaution, until the last cases occurred, to prevent the infection being carried to those females who were recently delivered. From the 26th of March 1821, the date of the first case, to the 9th of December following, when the last case, of which I have given the outlines occurred, we delivered 463 patients ; from which it will appear, that not one in eleven were seized with the epidemic. It is not, therefore, probable, that so great a proportion of our patients would have escaped the disease, had the infection been of so concentrated a nature as we have been taught to believe. On the other hand, how are we to account for patients having been seized with it, who had no medical attendant of any description when they were delivered, and sent for none till the disease manifested itself, as happened in Mr Kennedy's case, and in that of a Mrs Macdonald, residing in Liberton's Wynd ? The appearance of the disease in the woman delivered by Mr Bruce, is not less extraordinary ; for this gentleman never saw a case of it until he attended this patient, who resides at a distance of nearly two miles from town, and who declares that she had no communication with any one of those who were affected.

Ever since I have directed my attention to female practice, it has appeared to me, that the disease styled Puerperal Fever, one of the most formidable to which women in child-bed are liable, has been surrounded by a greater mass of inconsistencies than any other : and that, of all the authors who have expressly treated of it, very few, at least in this country, seemed to have any just conception of its nature, or to have treated it as it ought. In submitting the following cases, therefore, as well as the preceding observa-

tions to the profesion, I am merely actuated by a wish, to corroborate what has been advanced by Drs Gordon, Armstrong, and Mr Hey, the only authors who had correct ideas of this disease, and have had the boldness to treat their patients according to the sentiments they entertained. I lay no claim whatever to originality, for Drs Denman and Leake entertained nearly the same sentiments, respecting the pathology of this disease, that I have now advanced, although not with sufficient perspicuity. But what we have chiefly to regret is, that neither of them unfortunately put their opinions to the test of experiment, by applying them to practice, with that boldness which we might have expected, from their correct knowledge of the nature and fatality of the disease.

It will be seen, by these cases, that I have pushed the lancet further than has ever been done before on such occasions, which must stimulate the profession to employ it more fearlessly when they meet with cases of this nature, and, at the same time, refute an old prejudice, which gave us to understand, that women in the puerperal state could not bear bleeding so well as in other circumstances. I have always, however, been of the contrary opinion; because, from the superabundance of blood circulating in the system after parturition, as well as the greater proportion of albumen which the blood contains during gestation, women in child-bed will be able to support the loss of blood better than on any other occasion. Dr Denman, at one time, entertained the former opinion; but, in the later editions of his unrivalled work, he changes his sentiments; and he expressly states, "that his fears were groundless, and his reasoning fallacious."

From the preceding observations, and cases immediately to be detailed, my sentiments respecting the cure of this disease must be quite obvious; but I am still very diffident in laying the results of my practice before the profession,

particularly as the treatment which I pursued and found so successful has been said to be of no avail, or condemned as destructive to life, and as those authors who have furnished us with the best works on this subject have been accused of having deceived themselves. Dr William Hunter was in the habit of informing his pupils, that in whatever manner they treated such patients, three out of four would die. One professor of midwifery, in a celebrated Northern University, declared the puerperal fever incurable ; and his ingenious successor concludes his observations upon it in the following words : “ From the above cases, and from all that has been yet written on the subject, we may, with great truth, conclude, that we know little of the nature, and still less of the cure, of puerperal fever.” And in speaking of blood-letting, the same eminent teacher declares, that, “ by employing the lancet, we are only signing the death-warrant of the patient.” The influence of these declarations, coming from persons of such high authority, must make a powerful impression on the mind of every one ; and, were it not that I am supported in my opinion by the eminent characters already so often mentioned, I am convinced I should not easily be prevailed upon to publish these cases. The cases, however, will speak for themselves ; but, in whatever light they may be viewed, it is a great satisfaction for me to be able to say, that they were seen by gentlemen of exalted rank in their profession, strict probity, and eminent professional acquirements, who were decidedly of opinion that they were genuine cases, and who were no less satisfied that nothing but the lancet could save such patients. Indeed I must do these gentlemen the justice to take this public opportunity of stating, that, in two of the cases, they urged the further use of the lancet, when I thought such a step injudicious : but their advice was crowned with success. With respect to blood-

letting, it is surprising that it should have fallen into disuse, although recommended by almost every physician of any reputation, from the time of Hippocrates to the present day; but it could only have been its untimely or undue use, and declarations of the above nature, with the strong cautions under which it was recommended, that has brought this invaluable remedy into disrepute. Even Denman and Leake, who were among the first to declare that puerperal fever was of a most inflammatory nature, acted in their practice almost in direct contradiction to their own sentiments; for the former recommended large bleedings, but practised small; and the latter also was contented with taking away 8 oz., and sometimes considerably less: And many others, although they recommended bleeding, advised us never to have recourse to it without dire necessity, and the most mature deliberation. Whether the puerperal fever be infectious or not, or whether the infection be in its nature similar to that which produces typhus, or one *sui generis*; this question is not to deter us from using the lancet boldly, since it is a remedy which is now found decidedly advantageous in typhus, the endemic of the West Indies, commonly called yellow fever, and in dysentery,—diseases in which bleeding would have been considered, some years back, as a murderous practice.

CASES.

CASE I.—Mrs N. æt. 25, a female of spare habit, but healthy constitution, fell in labour of her second child on Sunday 26th March, at 5 o'clock. At this time the uterine aperture fully equalled the size of a crown-piece, and

felt quite soft and dilatable. The presentation was natural,—the vertex presenting at the right acetabulum, and the face towards the left side of the pelvis; but uterine action was so trivial, that I deemed constant attendance unnecessary. On this account I took my leave, desiring that I might be called when the pains, by their frequency and power, should indicate that the patient required more attention. I was accordingly sent for at 11 P. M., when I found uterine action so powerful, and the first stage of labour so far advanced, that I considered it my duty to remain by the patient until she should be relieved,—particularly as the os uteri was so dilatable, and the passages throughout so well prepared. Labour gradually advanced from this period, without any remarkable occurrence, until four in the morning, when the membranes gave way, and a limited quantity of liquor amnii was discharged. The head at this time had made very little progress through the brim, although the labour pains had all along been strong. This little advance of the head was owing to its size, which, after the rupture of the membranes, was discovered to exceed the ordinary dimensions, while the pelvis did not seem to me to be more than usually capacious. The head, greatly elongated, was ultimately expelled at half-past 12 at noon, and the body and secundines soon followed. The fœtus proved to be a male, considerably larger than the usual size. It was not convenient to have it weighed, but the large diameters of the head exceeded the usual dimensions by an inch and a quarter; and to shew that it was exposed to much pressure during its descent, the parietal protuberances were completely obliterated, being levelled with the rest of the skull. The patient had ℥j. of camphor in the evening to allay after-pains and procure rest, and she continued to do well for the remainder of this and the following day; but she talked incessantly, in

defiance of every remonstrance. March 28.—I called at noon, and found the patient labouring under severe head-ach, deep-seated pain in the eyes, troublesome thirst, great heat of surface, and a strong full pulse of 135, with some diminution of uterine discharge. She informed me that she experienced severe rigors at 2 in the morning, which were succeeded by the uneasy feelings just detailed, and diminution of the secretion of milk. The above symptoms were accompanied by excessive nausea, which sometimes ended in vomiting, the matter brought up having a bilious appearance. There was also pain above the pubis, but so little felt by the patient, that, if the question had not been asked her, it is probable she would not have mentioned it. When the hand, however, was applied over the abdomen, a little nearer the umbilicus than the pubis, the uterus could be felt much larger than it should be found at this period after parturition; and moderate pressure occasioned much pain. The tongue was clean and moist, but the bowels were torpid, attended with some pain in voiding the urine. The patient had a wild eye, and her countenance was equally unsettled. It was remarked that she made no inquiry after her child. Under circumstances like these, the practice was quite obvious; and I accordingly proposed immediate venesection, which was obstinately resisted by the patient, but under a promise to submit to it in the evening, unless relief were obtained by other remedies. In the mean time, she had sub. mur. hyd. gr. iv. et ox. antim. c. phos. calc. gr. vi. made into a bolus with conserv. rosæ, and in an hour afterwards ℥j. of sulph. magnes. I likewise ordered warm fomentations to the abdomen, and occasionally small quantities of warm gruel, to promote the action of the bolus. In the evening, at 6, I visited her, accompanied by Dr Murphy; we then found the pulse at 140, and more contracted than at the fore part of the day. The cathartic

medicines had produced several evacuations ; the skin was somewhat moist ; the lochia more copious ; but there was no remission of the abdominal pain, which, instead of being confined to the uterus, as at the former visit, was now more diffused over the abdomen. She now submitted to be bled ; and 25 oz. were taken from the arm, which induced syncope, and procured much relief. Thursday, 29th, continued better in every respect ; had slept well during the night ; had very little uneasiness in the abdomen ; lochia continued ; but breasts were flaccid ; pulse about 130. Diarrhœa followed the exhibition of the cathartic. Hora somni tinet. hyoscyami ʒij. cum aq. menth. pp. ʒj. habeat. Friday, 30th, 10 A. M., appeared dejected ; pulse 145, and thready ; tongue clean and moist, with its margins of a fiery red colour. When she attempted to sleep, her eyes remained half open ; diarrhœa and the uterine discharge continued ; abdominal pain was increased ; the abdomen felt tumid, but not distended ; and when the umbilicus was pressed upon, the patient started up in bed from excruciating pain. At this time my friend Mr Lizars saw the patient, and was of opinion that the lancet should again be used, which was done accordingly, and 18 oz. of blood abstracted with manifest relief. From the diarrhœa still continuing, she was now ordered some chalk julep. At 1 P. M. the abdominal pain recurred ; 12 oz. more were detracted ; the warm fomentations were continued ; and a dose of the tinet. hyoscyam. exhibited at bed-time, ʒss. aq. acet. ammon. every half-hour while awake, with a view to promote diaphoresis. 31st, I was called at 2 A. M. to attend another patient, whose labour was not concluded until 6, prior to which time I had again been sent for to Mrs N., from her becoming much worse ; but the messenger finding me from home, called Mr Lizars, who, in consequence of the patient's aggravated sufferings, took away

18 oz. more blood, with some alleviation of pain. Patient was very restless during the night, suffered greatly from nausea, and vomited twice something of a coffee-coloured substance ; so that, from the very irritable condition of the stomach, she was unable to take the aq. acet. ammon. oftener than twice. The tongue was still clean ; the diarrhœa had been checked by the chalk julep, conjoined with aromatic confection ; but the lochia continued. The abdomen was now nearly as large as it was previous to delivery, presenting a sugar-loaf appearance, and was not at all tense, but conveyed a feeling to the hand as if it contained air. At 11 A. M. I visited the patient, accompanied by Mr Lizars and Dr Murphy, who were of opinion that any further detraction of blood would be injudicious, although her sufferings were still excruciating. It was now resolved to apply sinapisms to the abdomen ; and she supported the application of the sinapism for several hours, and thought herself relieved after it. In consequence of the abdominal pains having returned in a few hours afterwards, another sinapism was applied, but without any benefit. She was now ordered camphorated julep every second hour, with a view to soothe her sufferings, and support the vital powers. She vomited coffee-coloured matter frequently during the night, and sometimes talked incoherently. April 7. she was seized at 3 A. M. with tremors, followed, at 4, by cessation of pain, with coldness of the lower extremities, and clammy perspiration over the whole surface. She expressed an earnest desire to see me ; and I was accordingly called at 6, when I ordered small portions of brandy to be given occasionally. I saw her again at 8.30 A. M., at which time she was quite sensible ; but the pulsation at the wrist had ceased, from which it was but too evident that death was near at hand. She accordingly sunk at 11 A. M.

Dissection.—On dividing the abdominal integuments, we were led to remark their extreme thinness, partly from having been stretched during gestation, and partly afterwards by the intestines in a state of distension. The recti-muscles were at least three inches apart, remarkably thin, and greatly expanded. The epigastric artery was carried outwards on each side by the rectus muscle*. On exposing the peritoneum, this membrane appeared unusually supplied with bloodvessels, and had contracted adhesions to the intestines. When the peritoneum was reflected, a white arborescent appearance was beautifully displayed on its intestinal surface, which, when further examined, was found to be the abdominal nerves greatly enlarged,—a circumstance never before noticed in such cases. When the abdominal viscera were brought into view, we had ad-

* In consequence of this separation of the recti muscles, and the course observed by the epigastric arteries, a longitudinal incision may be made in performing the Casarean section, to either side of the *linea alba*, with perfect safety to these vessels. I think it will be much better, indeed, to make the incision to one side or other of the umbilicus, than in the *linea alba*, where some have directed it. For, by making it in the *linea alba*, it is clear that we must separate the abdominal muscles at their central attachment, and, by so doing, greatly diminish that support which they afford to the abdominal viscera. But whether we are to be influenced by this last consideration or not, in making our incision, it is certainly of consequence to be aware of the change in the situation of the epigastric arteries, if it were merely with a view to their safety.

In all our dissections, I observed that the Fallopian tube, corresponding to the ovary displaying the appearance of a corpus luteum, was not only more vascular, but also much more capacious than the opposite one. And in the case of a woman who died from spasms soon after bearing twins, there was a corpus luteum in each ovary; and the increased capacity of each Fallopian tube was sufficiently obvious, which are facts worthy the attention of those who are engaged in pursuits relative to medical jurisprudence, and hitherto unnoticed by writers.

ditional proofs of the propriety of our method of treatment ; for the omentum, mesentery, and all the intestines, exhibited the most indubitable proofs of violent inflammation. The rectum, bladder, uterus and vagina, were also affected with inflammation to a great extent. The body of the uterus appeared red in many points, as if a minute injection had been thrown into its vessels. The uterine ligaments and tubes were inflamed, but the ovaries appeared unaffected ; and in the left ovarium, the *corpus luteum* was quite conspicuous. There was no gangrene to be observed, this having been prevented by the freedom with which the lancet had been used. The escape of fœtid gas from the abdominal cavity, as remarked by Hulme, was not observed in this case ; and it appears to me that such an occurrence will not be met with, except in cases attended with gangrene. The intestines, however, both great and small, were unusually distended with air ; and to this the great size of the abdomen was to be attributed. The intestines were glued together by coagulable lymph, and there was effusion into the cavity of the abdomen, though inconsiderable—not amounting in the whole to above 8 oz. ; it had more the appearance of purulent matter than serum.

CASE II.—Was a stout healthy married woman, of 37 years of age, who was delivered by Dr Patrick Murphy, of her seventh child, in the afternoon of the 2d of April, after having been sixteen hours in severe labour. Dr M. did not see her for twenty-four hours after her delivery ; she having been visited, in the mean time, by another of my pupils. When Dr M. called, he found her labouring under the same symptoms remarked in Mrs N.'s case, whose dissection he witnessed but a day or two before. He very justly concluded that it was the same complaint, and immediately bled her to the extent of 26 oz., which

produced syncope. He then ordered ʒjss. sulph. magnes. to be taken as a cathartic, and warm fomentations to be applied to the abdomen. At 4 p. m. of the same day, I saw this patient along with Dr Murphy; and as her pulse was again so high as 150, with much uneasiness of the abdomen, 20 oz. more blood were taken from the vein formerly opened. The mammæ were flaccid, and uterine discharge diminished, but not suppressed. She was at this time prescribed the following powder, in order to excite the cutaneous discharge, and promote the action of the intestines. ℞ Sub. mur. hyd. gr. iij. Pulv. antim. c. phos. calc. gr. vj. M. This powder was directed to be repeated if necessary, and the warm fomentations continued. April 4.—She was greatly better; her tongue, from having been dry and covered with a dark brown fur, was now clean and moist; her thirst less; skin moist; pulse 120, but soft; the lochia more copious; and the patient expressed herself quite relieved. She had no other remedy than an occasional diaphoretic and purgative, and had a perfect recovery in a few days.

CASE III.—A healthy married female, of 25 years of age, was delivered of her second child on the 3d of April, by Mr Young, one of my pupils, after a very easy natural labour. She was seized in twelve hours afterwards with severe rigors, followed by pain in the hypogastric region, which darted towards the loins and ilia, and was rendered very acute by pressure. She was bled to the amount of 32 oz. at 4 p. m., being two hours after the accession of rigors. At this time also she took a dose of the sulphate of magnesia, and had a perfect recovery, without any further treatment.

CASE IV.—A very nervous married female, aged 32, was delivered by myself of her fifth child, a male, at 5 A. M. on the 5th of April, after a very easy natural labour. She continued well until three the following morning, when she was seized with severe rigors, and other concomitant symptoms. I did not see her until six in the evening; but she had been prescribed a dose of ol. ricini and warm fomentations by a female attendant. When I saw her, she had a strong full pulse of 145; she was lying upon her back, quite listless, and indifferent about her infant and other surrounding objects; she had severe nausea, but no vomiting; and complained much of difficult respiration. The abdomen, generally, was painful, particularly upon pressure; the uterine discharge was diminished, but not suppressed; and there was difficulty in voiding the urine. In this, as in all the other cases, there was pain over the forehead, and in the eyes, and there was also much depression of spirits: in fact, the symptoms altogether predicted a disease of the most formidable nature. I immediately tied up the arm, and abstracted from a large orifice, in a full stream, 32 oz. of blood by weight, which induced a tendency to syncope, and diminished greatly the abdominal pain. I directed the warm fomentations to be continued, the following powder to be taken immediately, and to be repeated in the course of the evening, if necessary.

R Pulv. antim. gr. iij. sub. mur. hyd. gr. ij. M. I saw the patient again at 9 P. M., and, from the state of the abdomen, and condition of the pulse, I took away 18 oz. more blood. The powder not having operated, she was ordered ʒj, sulph. magnes. and a cathartic enema at midnight, should the bowels still continue to resist the medicines previously administered.—April 6. In consequence of the state of the pulse and abdomen, 12 oz. more blood were detracted; and at six in the evening other 18 oz. —7th, Patient felt much better in every respect.—8th,

Patient talked greatly during her sleep, vomited twice coffee-coloured matter, but upon the whole continued free from pain.—9th, Continued nearly as the day before. R Sulph. magnes. ad ℥j. statim.—10th, Could not void her urine this morning without the catheter; pulse 132, and full; lochia continuing; abdomen free from pain. 6 P. M. Pulse as in the morning; complained of acute pain in the abdomen, particularly about two inches above the pubis, and in both iliac regions. V. S. B. statim ad ℥xxiv.; ordered to have twenty-four leeches applied to the pained parts. 9 P. M. V. S. B. ad ℥ix. Repet. An emollient cataplasim to be applied over the bites of the leeches, to promote bleeding. From this time the patient began to recover; and she was quite well on the 18th. Mr Lizars, Dr Moore, Dr Murphy, and Mr Harland, all saw this patient. Ten days after her recovery from this complaint, she had a severe attack of *phlegmasia dolens*, of which she also recovered; and in six weeks after, notwithstanding all her sufferings, she was able to nurse her own child.

CASE V.—A stout healthy young married female of 22 years of age, was delivered by myself of her second child, a male, after a very easy labour, on the 7th of April. On the 8th, she was visited by a female friend, to whom she mentioned that she was much troubled with after-pains; and she was advised to take four large wine-glassfuls of undiluted spirits to relieve them. In less than two hours after, she was seized with rigors of unusual severity, which were soon followed by symptoms not less severe, similar to those described in the other cases. I was called at 10 P. M., and bled her to the amount of 18 oz., which induced complete syncope, and greatly relieved her uneasy feelings. I then ordered two small doses of sub. mur. hyd., and ox. antim. c. phos. calc. as in the former cases, and warm fomentations to be applied to the abdomen.—9th, 9.30 A. M., felt scarce-

ly any pain ; pulse 76 ; skin moist and temperate ; lochia copious.—10th, Continued as the day before. 10 p. m., was again called in a great hurry, in consequence of all her symptoms having returned with redoubled violence ; which relapse was ascribed to her having been much agitated by her eldest child falling down stairs. I found her in great agony, unable to turn to either side in bed, with all the other symptoms equally as severe as in any of the former cases ; the lochia continued, but the mammæ were flaccid. At this visit I took away about 30 oz. of blood, which produced complete syncope ; after this she was ordered to take 10 drops of the tinct. digit. purp. every hour and a half. April 11th, 6 a. m., had still much pain of abdomen, with considerable tumefaction ; took the digitalis five times in the course of the night, without producing any effect on the pulse, which this morning beat from 140 to 145. At this visit I abstracted 18 oz. of blood, producing syncope in the recumbent posture ; during which, the patient vomited large quantities of coffee-coloured matter. At 1 p. m. the abdominal pain and velocity of the pulse continued, accompanied with hurried and oppressed respiration ; I therefore detracted 24 oz. more blood. At 8 p. m. the pulse, if any thing, slower ; tongue much cleaner ; abdomen easier, and less tumid. Digitalis to be discontinued. April 12th, 10 a. m., Continued nearly as yesterday ; vomited much coffee-coloured matter during the night. Enema commune statim, et haust. efferves. ad \bar{z} j. quaque secunda hora habeat. 2 p. m., Ever since the exhibition of the enema, and two doses of the effervescent mixture, she vomited immense quantities of coffee-coloured matter, which was brought up almost without an effort. 8 p. m., Patient was scarcely able to speak ; vomiting had ceased ; pulse not very distinct at the wrist ; the extremities were becoming cold, which, with the appearance of the countenance, indi-

cated approaching dissolution. She continued sensible to the last, and expired at 11 P. M., apparently without much suffering.

Dissection.—When the body was exposed, we observed *vibices* on the lower extremities. On dividing the abdominal integuments, there did not appear to be much loss of substance, for they were by no means so thin as in Mrs N.'s case, nor was the abdominal swelling so considerable. When the peritoneum was divided and reflected, it had not, as in Mrs N.'s case, contracted any adhesion with the viscera underneath; and its vascularity, although somewhat preternatural, was not, however, very remarkable. Its nerves were greatly increased in size, as in Mrs N.'s case. The vascularity of the mesentery was somewhat increased, but not to any great extent. The uterus and its appendages were the parts which suffered most; and here there were sufficient evidences of injury. The peritoneal coat of the uterus was greatly inflamed; and the broad and round ligaments still more so. The ovaries were enlarged to the size of a hen's egg, and the left ovary in a state of suppuration or ulceration; and both, when laid open, were found to contain sacs of purulent matter. There was effusion of serum into the cavity of the abdomen, but not to any extent; and it did not resemble pus so much as that found in the former case; it had more of a serous appearance, and contained curdy matter. The intestines did not cohere; nor were they interlined with coagulable lymph, as in the other case. The omentum, but particularly its inferior margin, was much inflamed, and its fat throughout greatly consumed. The stomach and intestines were much distended with flatus. Dr Moore, Dr Murphy, and Mr Maxwell, witnessed this dissection.

CASE VI.—A married woman of 38 years of age, of a

spare habit and delicate constitution, was delivered on the 8th of April of her fifth child, a stout male, by Dr Patrick Murphy. Her labour was tedious, in consequence of an exostosis placed upon the left os pubis, a little lower than the brim of the pelvis. When the child was born, there was an indentation observed on the left side of the frontal bone, sufficiently deep to lodge two fingers; and the mother said, that a similar depression was seen on the head of her former child, when she also had a very severe labour. The patient continued as well as could be wished until the 14th, when she was seized with severe rigors, and other symptoms, as detailed in the former cases. The lochia ceased soon after the accession of the rigors, and the secretion of milk was also much diminished. I called upon her by mere accident four hours after the rigors; her pulse was then 140, accompanied with much languor, headach, a sensation of soreness over the abdomen, which was rendered more acute by pressure; and the abdomen itself felt tumid. She was lying upon her back, incapable of turning to either side, and appeared quite indifferent about her child, a symptom observed in most of the other cases. In this condition, I resolved on bleeding her immediately, but found that I had forgot to bring my lancets. I instantly repaired to Dr Murphy, who lived very near the patient, and I begged of him to take charge of her, and stagger the disease at once with a copious bleeding. In half an hour after I left him, he saw the patient, and was so well convinced of the necessity of attending to my directions, that he abstracted 30 oz. of blood at once, which occasioned complete syncope, and effectually subdued the disease. This patient had no further treatment, except warm fomentations, together with an occasional purgative, and sometimes also anodyne; and she was so far recovered on the 20th, that we gave up visiting her.

CASE VII.—A very nervous young married female, of spare habit and delicate constitution, aged 22, was delivered by one of my pupils of her first child, a male, on the 19th of April. Her labour lasted 22 hours, and was perfectly natural. The head and abdomen continued uneasy from the time of parturition; the milk appeared at the usual period; the lochia continued uninterrupted; and the pulse did not indicate any increased vascular action until the 25th, six days after delivery, when it was discovered to be at 126, strong, and incompressible; the pain of abdomen was rendered very acute by pressure; and the head was becoming gradually more uneasy. Under these circumstances, my friend Mr Lizars saw her in the morning, and directed her to be bled, which was done accordingly, and 18 oz. abstracted from the arm, which produced complete syncope, and greatly diminished the pain of head and abdomen. At 3 P. M., when on my way to lecture, I met the gentleman who delivered her coming for me, to request that I should visit this patient for the first time. From the previous history of her indisposition just detailed, as well as the symptoms under which she laboured at this time, not a doubt remained in my mind as to the nature of her complaint. I inquired if she had rigors, as this was observed in all the other cases; and was answered that she had shiverings at 2 A. M., but that they were not very severe. When I saw her at this time, she was lying upon her back, unable, from the severity of the pain, to turn to either side; she complained of much pain in the abdomen, which was aggravated on taking a full inspiration, or on coughing; the mammæ were flaccid, but the uterine discharge continued; the pulse was 140, hard, and incompressible. She was again bled to 14 oz.; warm fomentations were applied to the abdomen; and a small dose of the sub. mur. hyd. and ox. antim. c. phos. calc. directed to be taken,

and repeated at the end of three hours. 6 P. M., Abdominal pains, with other symptoms, as formerly; V. S. B. ad ζ xiii. Rept.; twenty-four leeches to be applied to the abdomen. 9 P. M., Pulse 116, but still hard and incompressible; a warm emollient cataplasm to be applied to the abdomen, to promote the bleeding from the wounds of the leeches; bleeding from the arm to be repeated during the night, if necessary. April 26th, The medical attendant was so intimidated by the patient and her relatives, that bleeding, though loudly called for in the night-time, was not practised; 15 oz. more blood were, however, taken from the arm this morning; the leeches reapplied; and, after they had dropped off, the warm fomentations were continued. After this bleeding, she was seized with severe spasms and hysterical screamings, to which she had been liable on former occasions; but, after she recovered from that state, she felt the abdomen much easier. 3 P. M. The abdominal pain having returned, accompanied with a firm steady pulse of 145, 7 oz. more blood were taken away, which occasioned syncope and spasms, as formerly. 6 P. M. Abdominal pain returned, but pulse too much sunk to support further bleeding; warm fomentations continued. 9 P. M. Pulse 145, firm and incompressible; abdominal pain severe; 10 oz. more blood were abstracted; a laxative enema administered; and a mustard cataplasm applied to the abdomen. April 27, The application of the cataplasm was supported for several hours during the night; abdominal pain much diminished; the pulse becoming firmer at 1 A. M.; bleeding was repeated to 7 oz.; patient slept for several hours during the night. 1 P. M. Pulse 120, somewhat firm and equable; abdomen could be freely pressed, without occasioning pain. 6 P. M., Continued nearly as in the forenoon; urine drawn off by the catheter, in consequence of retention. Enema commune statim. April 28. 10 A. M.,

The velocity and firmness of the pulse having returned, with abdominal pain, venesection was repeated to 7 oz.; and, at mid-day, 12 oz. more were detracted with decided benefit. At 4 P. M., the abdominal pain, with quick firm pulse, again returned, and 7 oz. more blood were taken, which completely relieved the patient's uneasy feelings; for she fell asleep soon after, and rested well during the whole of the night. April 29., felt better in every respect; abdomen could be freely pressed, without occasioning pain; patient had succeeded in turning round on her knees in bed, to make water,—an effort which she had not been capable of since her delivery. Enema commune statim. April 30. skin temperate; pulse 116, soft and equable; bowels regular; *Haust. anod. h. s. habeat.* May 2., slept well during the night, and continued in every respect as on the 30th. 3 P. M., The patient was suddenly seized with spasms of the stomach, returning at intervals, and succeeded by constant and severe abdominal pains. At 5, the surface was covered with a clammy sweat; the extremities became cold, and the patient delirious; and she expired at half past 10. Mr Lizars, Dr Murphy, and Mr Maxwell, saw this patient repeatedly during her indisposition. Dissection could not be obtained.

CASE VIII.—A stout healthy married female, of 33 years of age, among the better ranks, whom I delivered on the 20th of April, of her 7th child, a male, after an easy labour. I was merely called to attend this patient in her labour, in consequence of the gentleman who should have been with her having been at another case at the time, and next day I left her under his care. On the 23d, at midnight, she was seized with rigors, followed by such other symptoms as I have detailed in the former cases, and she was bled to the amount of 19 oz., and took a saline purgative.

April 24th, A. M., bleeding was repeated to 12 oz. 25th, Patient felt quite easy. Sulph. magnes. ad ʒj. Repet. This patient was so well on the 30th, that her practitioner gave up visiting her.

CASE IX.—A stout healthy married woman, of 33 years of age, was delivered, in the forenoon, on the 22d of May, of her fifth child, a male, by Mr James Murray, one of my pupils; but, from his becoming indisposed soon after, she was put under the care of another of my pupils, Mr Julius Casement, A. B. In 12 hours after her delivery, she was seized with rigors, followed by abdominal pains, with which, however, I was not made acquainted until the following morning at 10, at which time she lost 26 oz. of blood; afterwards took a saline purgative; and warm fomentations were directed to be applied to the abdomen. At 3 P. M. 9 oz. more blood were detracted by Mr C.; and, at 8 P. M., 8 oz. more by myself. At 11 P. M., pain still continuing, 12 oz. more were taken away. May 24. Continued almost without pain; belly regular; pulse 125, and soft; warm fomentations to be continued. 25th, Complained of severe pain in the left iliac region; 12 leeches to be applied to the pained part, and a cathartic enema exhibited. 26th, Pain more diffused over the abdomen, and of greater severity than yesterday. V. S. B. statim ad ʒxvj.; enema catharticum postea. From this time, the patient continued free from pain. On the 2d of June, she was restored to her usual health, and began to nurse her own child.

CASE X.—A stout healthy young female, of 29 years of age, delivered by a midwife, on the 31st of May, of her fourth child, a male, after an easy labour. She continued to do well until the 3d day, when she was seized with severe rigors at noon. I was asked to see her at 2 P. M., be-

ing then visiting another patient, delivered the day before, under the same roof. She was immediately bled to 28 oz.; she was ordered a saline purgative, and warm fomentations to be applied to the abdomen; and, except an occasional cathartic, no further treatment was required. On the 10th of June, she was restored to her usual health

CASE XI.—A healthy young married female, wife of a private of the 41st regiment of foot, was delivered, on the 16th July, by Dr M'Cormick (one of my assistants), of her first child, a female. The labour was severe and tedious, and lasted altogether 20 hours. She lost 34 oz. of blood during her labour, in consequence of the uterine dilatation being tardy, and the external parts extremely unyielding. During her delivery, she frequently called for wine or spirits, which were at that time prohibited. The night after delivery, as well as the following day, we discovered that she was freely indulged in spirits by some of the attendants. On July the 18th, at 8 A. M., she was seized with severe rigors, with other symptoms, which, in point of severity, equalled any of the foregoing cases; with this difference, however, that the abdomen felt much harder than in any of those already detailed. I saw her at 10, with Dr M'Cormick, and we bled her to the amount of 17 oz., which induced complete syncope, and relieved her uneasy feelings very much; warm fomentations were applied to the abdomen, and she took a saline cathartic. At 3.30 P. M., abdominal pain, with velocity and hardness of pulse, had increased since last visit. V. S. B. and 3x. rept. At 9, bleeding repeated to 12 oz. July 19th, 3 A. M., vomited coffee-coloured matter frequently during the night; bleeding repeated to 9 oz. by Dr Edward Kelly, another of my assistants. 9.30 A. M., pulse very frequent, and intermitting; pain of abdomen still excruciating; surface covered with a

clammy sweat ; she vomited every thing ; countenance had a death-like appearance ; she continued sensible to the last ; and expired at noon. Dissection could not be obtained.

CASES XII. XIII. & XIV.—In the first case, 32 ounces of blood were taken away ; in the second, 46 ounces were detracted at two different bleedings ; and, in case XIV., 37 ounces were taken away at two bleedings, and the patients recovered.

CASE XV. occurred on the 16th of September, four days after parturition, the patient, a stout, healthy, young married woman, having been delivered by Mr Bruce of her first child, a large male infant. During labour, the perinæum was lacerated to a considerable extent, in consequence of her bearing down with great violence when the head was on the eve of being expelled. My friend Mr Lizars and myself, were visiting another patient in her neighbourhood, and called in by mere chance. She informed us that she had severe rigors at noon ; and the case, altogether, proved to be one of the most genuine I had yet witnessed. She was bled instantly, to the amount of 28 oz. ; took a saline cathartic ; and had warm fomentations applied to the abdomen. She had no farther treatment, except an occasional laxative, and was so far recovered on the 23d, as to be able to leave her bed.

From the date of the last case, until I was called by my friend Mr Kennedy, the disease disappeared in our practice. At that period the cold rainy weather set in, and with it the disease returned. It was now more frequent and fatal than formerly ; for, in less than two months, we had no fewer than twenty-six cases, out of which number we lost eight. In these last cases, besides the free use of the lancet and purgatives, we also had recourse to the application

of 50 or 60 leeches to the abdomen • the enema domesticum frequently thrown into the rectum, and injections of warm water into the vagina, with decided advantage. The practice of throwing warm water into the vagina has been pursued, for a considerable period, by the French, as may be seen by consulting M. Maygrier; so that no one in this country can claim to himself the merit of having first recommended it. In one case, where diarrhœa with much gripping supervened, 20 drops of the sedative solution of opium were thrown into the rectum, and a similar quantity, some time after, for the same reason, into the vagina, and the patient's uneasy feelings almost immediately subsided. The same remedy, administered by the mouth, to the amount of 10 or 15 drops, had a similar effect; it also occasioned general perspiration, diminished the thirst and frequency of pulse; and its exhibition was not followed by torpor of the bowels, as results from the use of opium or laudanum. This last remedy was suggested by my friend Dr Mackintosh, who, with Dr Orr, very kindly offered to superintend the proceedings of my assistants, Messrs Black, Kinmouth and Davis, and relieve me entirely from the duty, in order to prevent the public supposing that I conveyed infection from one patient to another. It is not for me to say much of the talents and zeal displayed by these two gentlemen in directing the conduct of my assistants, who also evinced much anxiety in the execution of their duty. The result of their labours will say more for them than I can; and I shall leave the rest to the gentlemen who acted under them, and to those towards whose recovery they very effectually contributed. To my assistants, they afforded

* In two of these last cases, each of the patients had 150 leeches applied to the abdomen, and in one of them with success;—the other died, because she was so much afraid of the lancet and leeches, that she denied having any pain in the abdomen, so that these remedies were not carried to the extent they ought.

an example of perseverance and patience, which will be a useful lesson to them in their future professional career ; and their humanity and diligence have been such, as to make a lasting impression on those whom they laboured so arduously to relieve.

In examining the bodies of the last fatal cases, similar appearances were observed to those mentioned in the dissections already particularized. In one case, the ovaries were much enlarged, and contained sacs of purulent matter, as in one of the dissections already detailed. This was the only instance where we examined the cavity of the thorax, which was found to contain from 10 to 12 oz. of bloody serum ; but the viscera had a healthy aspect. In another dissection, witnessed by Dr Duncan *junior*, Professor of Materia Medica, Mr James Bryce, surgeon, Mr Lizars, and Dr Orr, the intestines were glued together by coagulable lymph ; and these gentlemen were pleased to declare themselves perfectly satisfied as to the nature of the disease, and equally so with the method of treatment adopted.

In conclusion, I shall briefly relate the steps pursued for the recovery of our last patient, in order to afford the profession an additional instance of the activity of our practice. On Thursday, the 6th of December, I went with Mr Mercer Morris, one of my pupils, to attend a young married female, named Ormond, of a full plethoric habit, aged 23 years, living in Foulis's Close, opposite the Cross, whom we delivered the same afternoon, at half-past three, of her first child, a male, after an easy labour. She continued well until the Sunday following, at 1 P. M., when she was seized with severe rigors, headach and abdominal pain. They sent immediately to acquaint me with the state she was in ; and Dr Mackintosh, Mr Davis and myself, repaired as soon as possible to her assistance. We found her in a state which left no doubt as to the nature of her indis-

position, and bled her instantly to the amount of 36 oz. ; warm fomentations were then applied to the abdomen: she had some doses of calomel and antimonial powder repeated at intervals ; and the enema domesticum was thrown into the rectum every second hour. In the evening she was visited at eight, when Mr Macdonald of the Royal Infirmary saw her, who likewise favoured us with his advice in some of the other cases ; the abdominal pain continued, 36 oz. more blood were detracted ; the cathartic powders continued ; also the enemata and warm fomentations as formerly. The ensuing day, the abdominal uneasiness still continued ; 60 leeches were applied to it, which bled profusely. In the evening at 9, my friend Mr Lizars accompanied Dr Mackintosh ; and, as the abdominal pain had not altogether subsided, it was thought expedient to detract 26 oz. more blood. From this time the patient continued well ; and she was so far recovered on the following Sunday,—a week after the attack,—that she was able to leave her bed. On Thursday the 20th, being the 14th day after her delivery, she was again seized early in the morning with severe rigors, and abdominal pains, which were a second time subdued by a bleeding of 32 oz. and some cathartic medicines. December 24th, she left her bed, and in two days more felt herself able to attend to her usual occupation. After recovering from the second attack, this patient was observed to labour under slight mental aberration, from which she recovered. The same thing happened in three other cases, and one of them still continues to labour under it.

2, NORTH ST DAVID STREET, }
December 28. 1821. }